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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,446	03/16/2004	Wong Hoo Sim	006404.P018	3201

7590 01/28/2008  
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Los Angeles, CA 90025

EXAMINER
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HANNETT, JAMES M

ART UNIT	PAPER NUMBER
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2622

MAIL DATE	DELIVERY MODE
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01/28/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/802,446	<b>Applicant(s)</b> SIM ET AL.	
	<b>Examiner</b> James M. Hannett	<b>Art Unit</b> 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11/13/2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-27, 29 and 32-39 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-27, 29, 32, 33 and 38 is/are allowed.
- 6) ☒ Claim(s) 34, 37 and 39 is/are rejected.
- 7) ☒ Claim(s) 35 and 36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| <p>1) <input type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br/>Paper No(s)/Mail Date _____.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/>Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
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## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 11/13/2007 have been fully considered but they are not persuasive. The applicant argues that the prior art does not teach camera orientation and pan direction is calculated by the processor by selecting a plurality of suitable features in two adjacent images. The applicant further argues that because the prior art does not teach this limitation the claims are allowed over the cited prior art.

The examiner agrees with the applicant that the amended claims are allowed over the prior art and that the prior art does not teach the above cited limitation. However, this limitation is not included in independent claim 34. Claim 34 includes limitations to determine the orientation and pan direction and further includes a step of selecting a plurality of features in two images and summing the movements together. However, the claim does not include the limitation of the camera orientation and pan direction is calculated by the processor by selecting a plurality of suitable features in two adjacent images as claimed in independent claims 1, 11 and 19.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1: Claims 34, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0095193 A1 May et al in view of USPN 6,243,103 Takiguchi et al.

2: As for Claim 34, May et al teaches the use of a camera that can capture images and stitch the overlapping portions together to form a panoramic image. However, May et al is silent as to the method used for determining the overlapping positions and does not give details into the stitching method.

Takiguchi et al teaches the use of a camera that can stitch images together having overlapping portions and teaches on Column 12, Lines 40-50 that the method of stitching the images together involves calculating orientation and pan direction of the camera. Takiguchi et al teaches that this method is advantageous because it improves image synthesis.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the image synthesis process of Takiguchi et al for synthesizing the panoramic images of May et al in order to generate a panoramic image having superior image quality.

Takiguchi et al further teaches on Column 12, Lines 54-58 that the synthesis method determines the camera orientation and pan direction by: (a) selecting a plurality of suitable features in two adjacent images of the plurality of still photographic images, the adjacent images having an overlap region; (b) determining the extent of movement of the plurality of suitable features from a first of the adjacent images to a second of the adjacent images; and (c) summing the movements in two different directions.

3: In regards to Claim 37, May et al teaches on Paragraph [0020 and 0030] wherein the transfer module is in a location selected from the group consisting of: the digital still camera, and

a computer to which the plurality of still photographic images have been transferred from the digital still camera.

4: As for Claim 39, Claim 39 is rejected for reasons discussed related to Claim 34.

***Allowable Subject Matter***

5: Claims 1-27, 29, 32, 33 and 38 are allowed.

6: Claims 35 and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7: The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach the use of a digital camera wherein the orientation and pan direction are determined by the processor for selecting a plurality of suitable features in two adjacent images having an overlap region and determining the extent of movement by summing the movements in two different directions.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Hannett whose telephone number is 571-272-7309.

The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on 571-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett  
Examiner  
Art Unit 2622



JMH  
January 22, 2008